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ROUTING AND RECORD SHEET

INSTRUCTIONS: Officer designations should be used in the "TO" column. Under each comment a line should be drawn across sheet and each comment numbered to correspond with the number in the "TO" column. Each officer should initial (check mark insufficient) before further routing. This Routing and Record Sheet should be returned to Registry.

FROM:				TELEPHONE	NO.	
OC-SP/NA					25X1	
					DATE	
					20 March 1956	
TO	ROOM NO.	DATE		OFFICER'S INITIALS	TELEPHONE	COMMENTS
		REC'D	FWD'D			
1. OC-SP		21 MAR 1956		af		
2. OC-E -1			3/26			
3. OC-E						
4. R & D	MAR 25 1956		3/29			← ACTION
5. Lab			3/30			Sub
6.						Here's one for the "R & D workload" file for R & D Board.
7.						FORB
8.						ILLEGIB
9.						
10.						
11.						
12.						
13.		DOC 20 REV DATE 4-12-60 BY 008632 ORIG CLASS 3 PAGES 3 E.O. 12812 JUST 22 NEXT REV 2012 AUTH: BR 78-2				
14.						4-5 Use up - Gust-per out discussion.
15.						

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FORM NO. 610
1 APR 55REPLACES FORM 51-10
WHICH MAY BE USED.

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Literature Summary.

1. Any and all data on Andes Ital.
2. Magnetostatic!

STANDARD FORM NO. 64

~~SECRET~~*Office Memorandum* • UNITED STATES GOVERNMENT

TO : Chief, Communications Engineering Division

SPM 6-527
DATE: 20 March 1956

FROM : Chief, Supplemental Programs Division, OC

SUBJECT: Fixed Frequency Reference Oscillator

25X1

can be made. At the present time those services engaged in collection are using either a manually struck tuning fork or a rather oversized electrically driven fork oscillator. Both methods are unsatisfactory on a number of counts --- awkward to handle, too much bulk, and represent additional weight.

2. The solution of the problem lies in the development of a miniature oscillator possessing the following characteristics:

- a) Size should not exceed 3 x 2 x 1 inches.
- b) Life not less than 24 hours.
- c) Frequency - 1000 cps (0 - 100° F)
- d) Stability - $1 \cdot 10^{-4}$

3. Because this unit is intended only to inject a reference tone, one control, i.e., push-button, is necessary. Its output level should be sufficient to drive a miniature recorder or "telex" headset. There are a number of circuits such as phase shift, transitron and crystal oscillators which have been practically configured with stabilities exceeding 10^{-4} . Recent periodicals have announced the commercial availability of audio crystals in a size suitable for this application.

4. This Division has operations in the field requiring such a reference generator and is planning several for the immediate future. Therefore, it is requested that your Division undertake the fabrication of five oscillators. Four will be dispatched to the field for operational support, the fifth will be retained as a prototype for the manufacturer of additional items.

25X1

DEC	_____	REV DATE	_____
ORIG COMP	_____		
ORIG CLASS	_____		
JUST	_____		

Distribution

Orig & 1 - Addressee

~~SECRET~~

James Knights Co.
Sandwich, Ill

Low Freq Range (1000 Cycles)
Miniaturized
Stability $\pm .0001$ % over an ambient range of -55 to +50
Packaged in glass enclosed vacuum or Mil type HC13U holder

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Other available information also in
ELECTRONICS APRIL 1956 Page 356
and
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